ABSTRACT OF THE DISCLOSURE:

A time frame switching method and system of data units that utilize a time frame labels and a common time reference (CTR), which is divided into a plurality of contiguous periodic time frames. The system is designed to operate with high-speed wavelength division multiplexing (WDM) links. The plurality of data units that are contained in each of the time frames are forwarded in a pipelined manner through the network switches, and can be switched from any incoming WDM channel to any subset of outgoing WDM channels responsive to the time frame labels and the common time reference. The combination of time frame labels and CTR can be further used for protection when a failure occurs.

5

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